

Survey of Non-fatal Workplace Injuries to Commercial Fishermen in Dutch Harbor, Alaska, 2007-2008

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Background

- Commercial fishermen in Alaska
- 124 deaths/100,000 workers
- 31 times national average
- Significant reduction in fatal injuries
- Minimal attention to non-fatal injury
- Non-fatal injury patterns unknown

Objectives

- Describe non-fatal injuries to commercial fishermen in AK
- Develop preventive strategies
- Create plan for AK investigation
- Develop model for expansion to U.S.

Dutch Harbor, Alaska

- Unalaska island
- Largest volume fishing port in U.S.
- Thousands employed
- Seasonal
- Migrant workers
- Solitary medical clinic
- Iliuliuk Health Center

Dutch Harbor, Alaska



Methods

- Query medical records (2007-2008)
 - ICD-9 codes: 800-999
 - Job Type: Fisherman
 - Corporate payer
- Onsite medical chart review (N=366)
 - Demographics
 - Injury description
 - Lost time

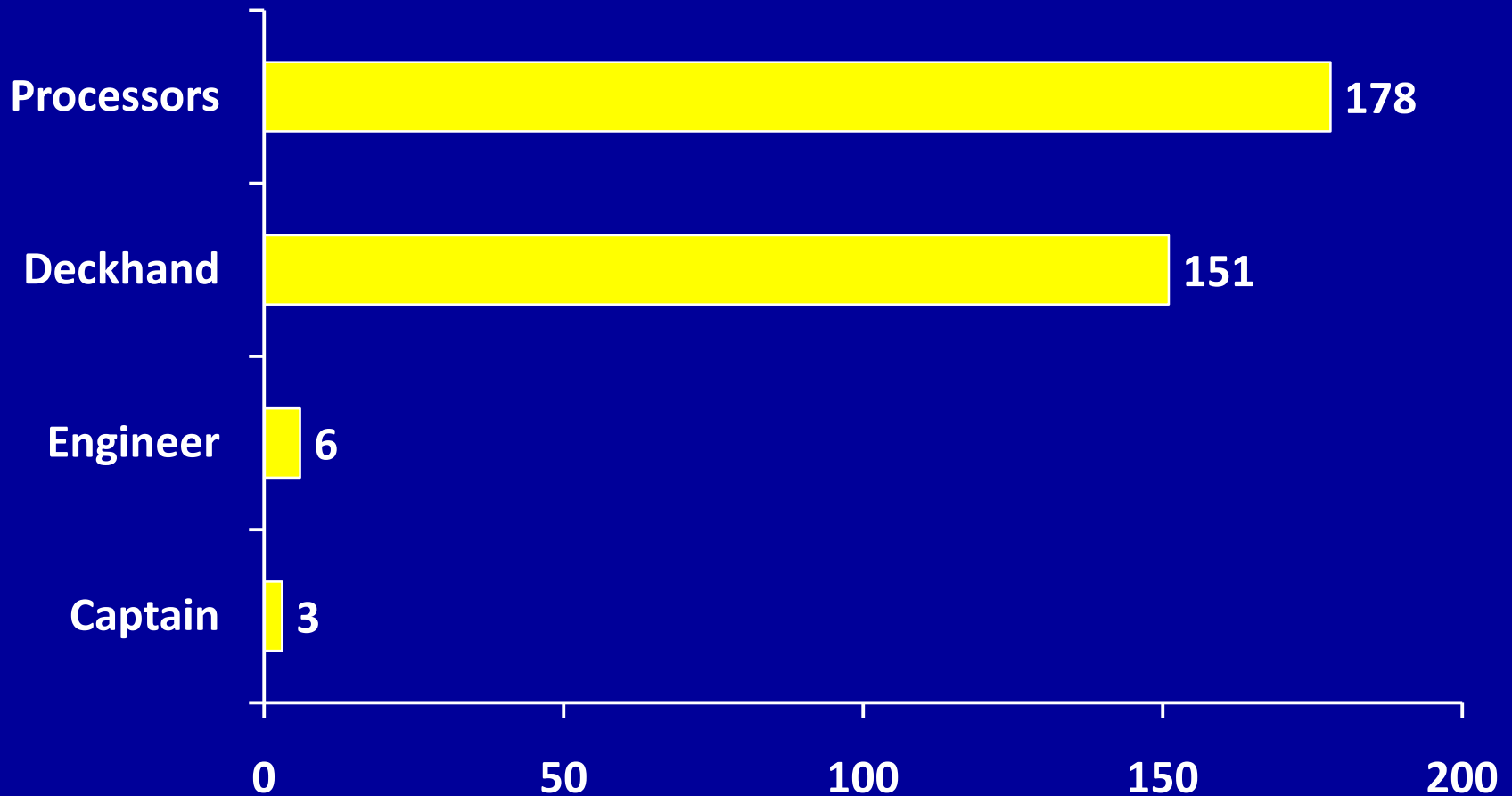
Injured Fishermen (N = 366)

	%
Male	99
Caucasian	55
African American	6
Pacific Islander	6
Asian	5
American Indian	3
Filipino	1
Other	6

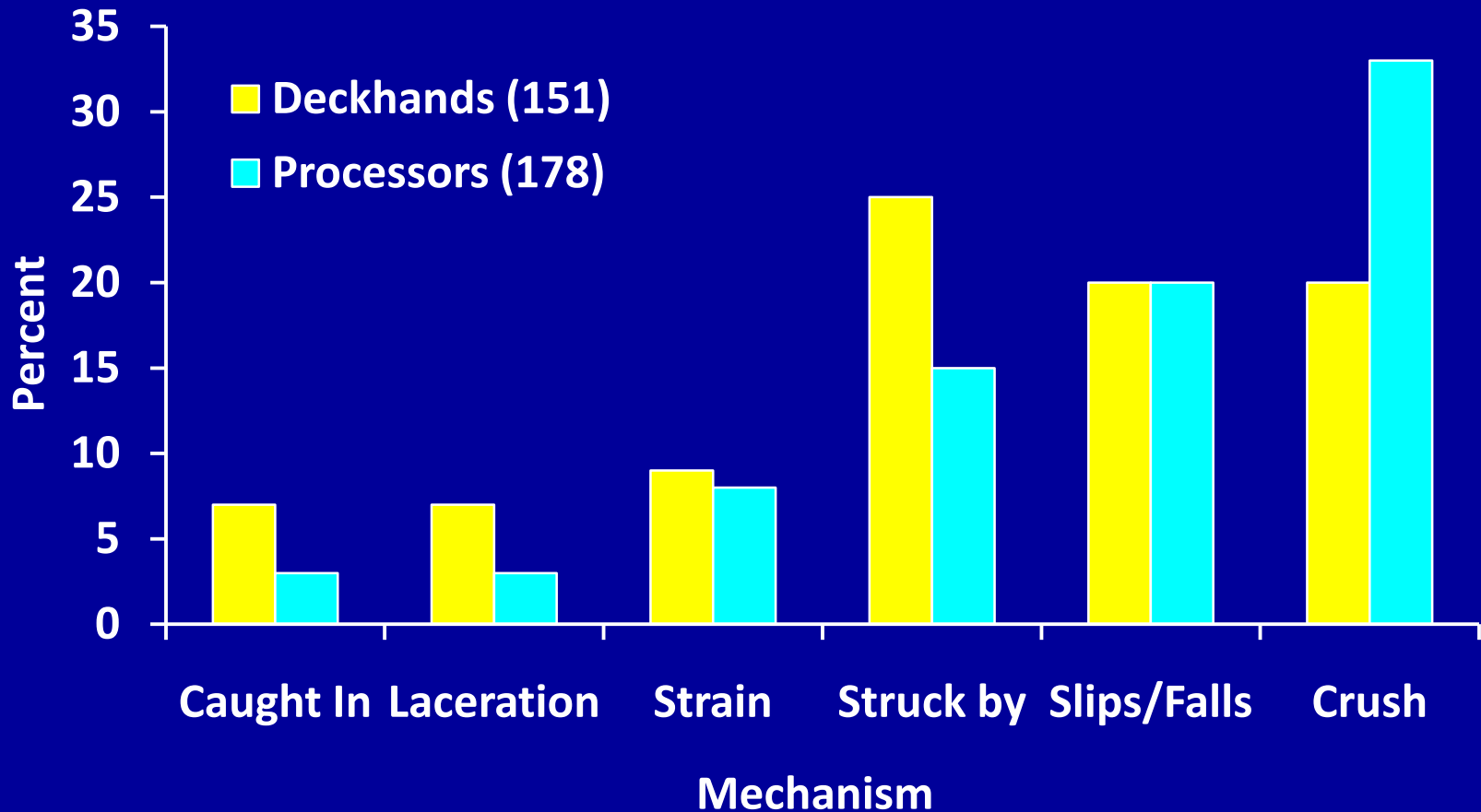
Location of Injury, 2007-2008 (N=366)

	%
At Sea	65
In Port	17
On Deck	30
Freezer	15
Factory	4

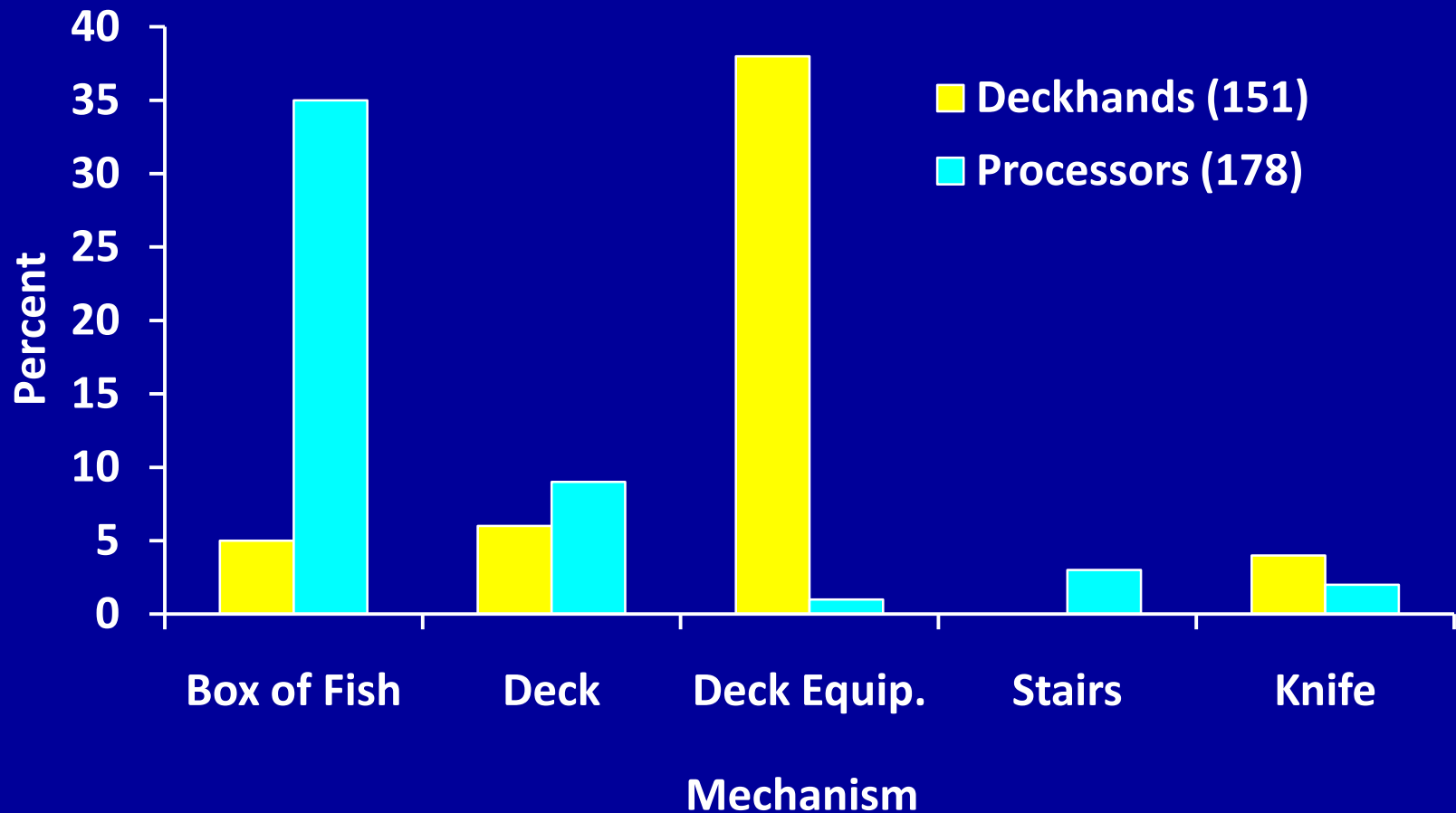
Injured Workers by Job Type, 2007-2008 (N = 366)



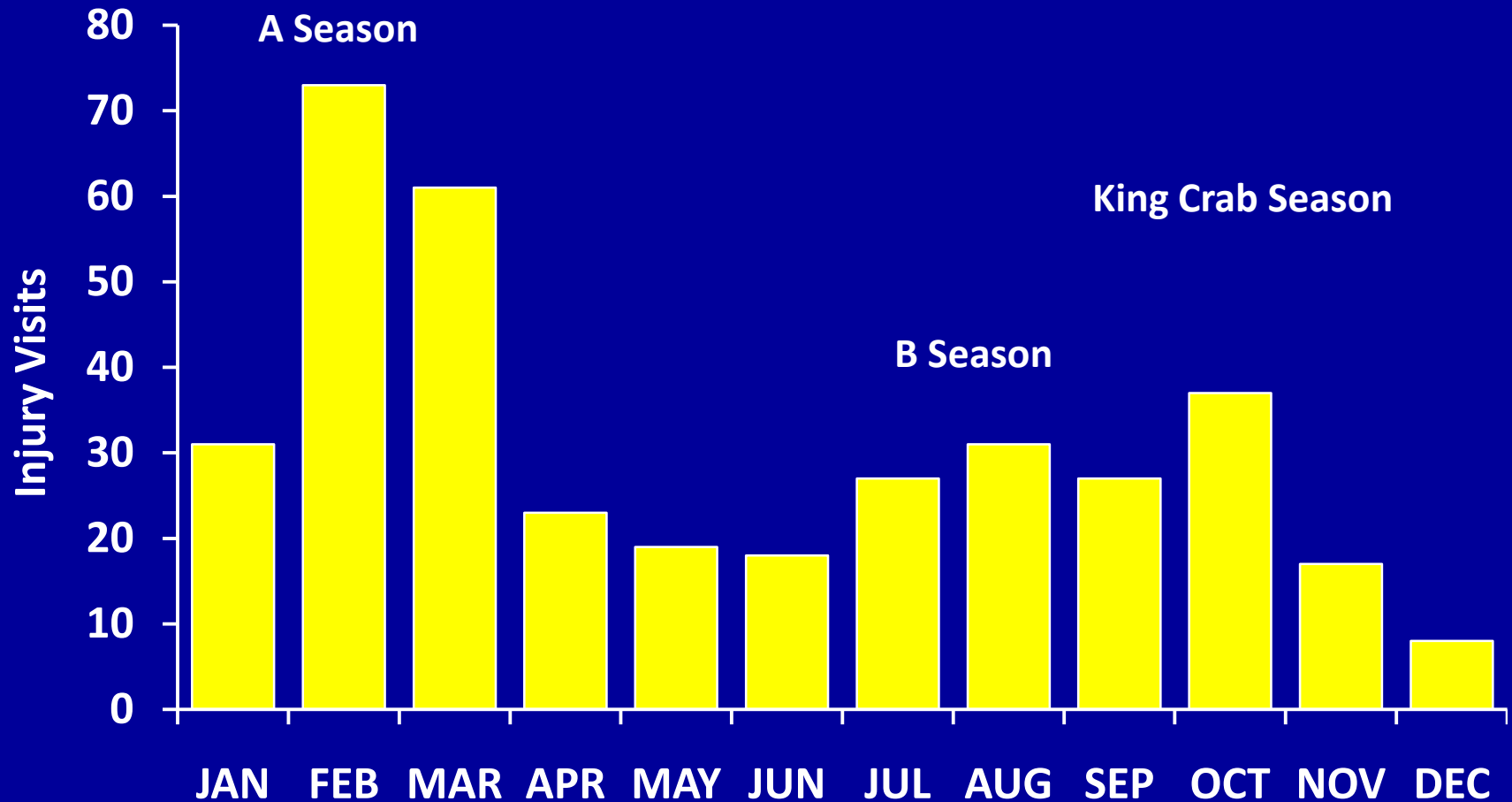
Injuries by Mechanism, 2007-2008 (N=366)



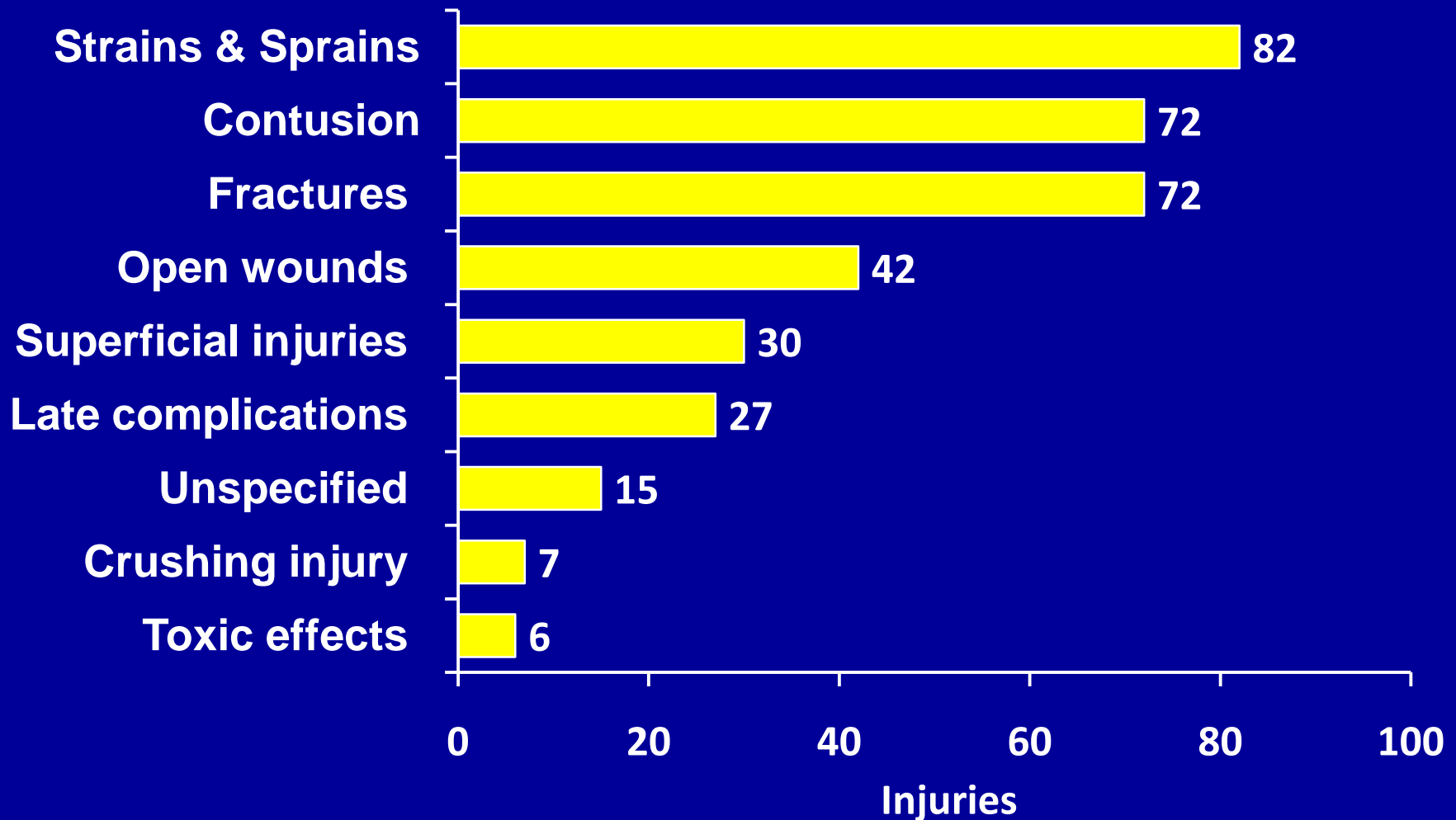
Injuries by Causal Agent, 2007-2008 (N=366)



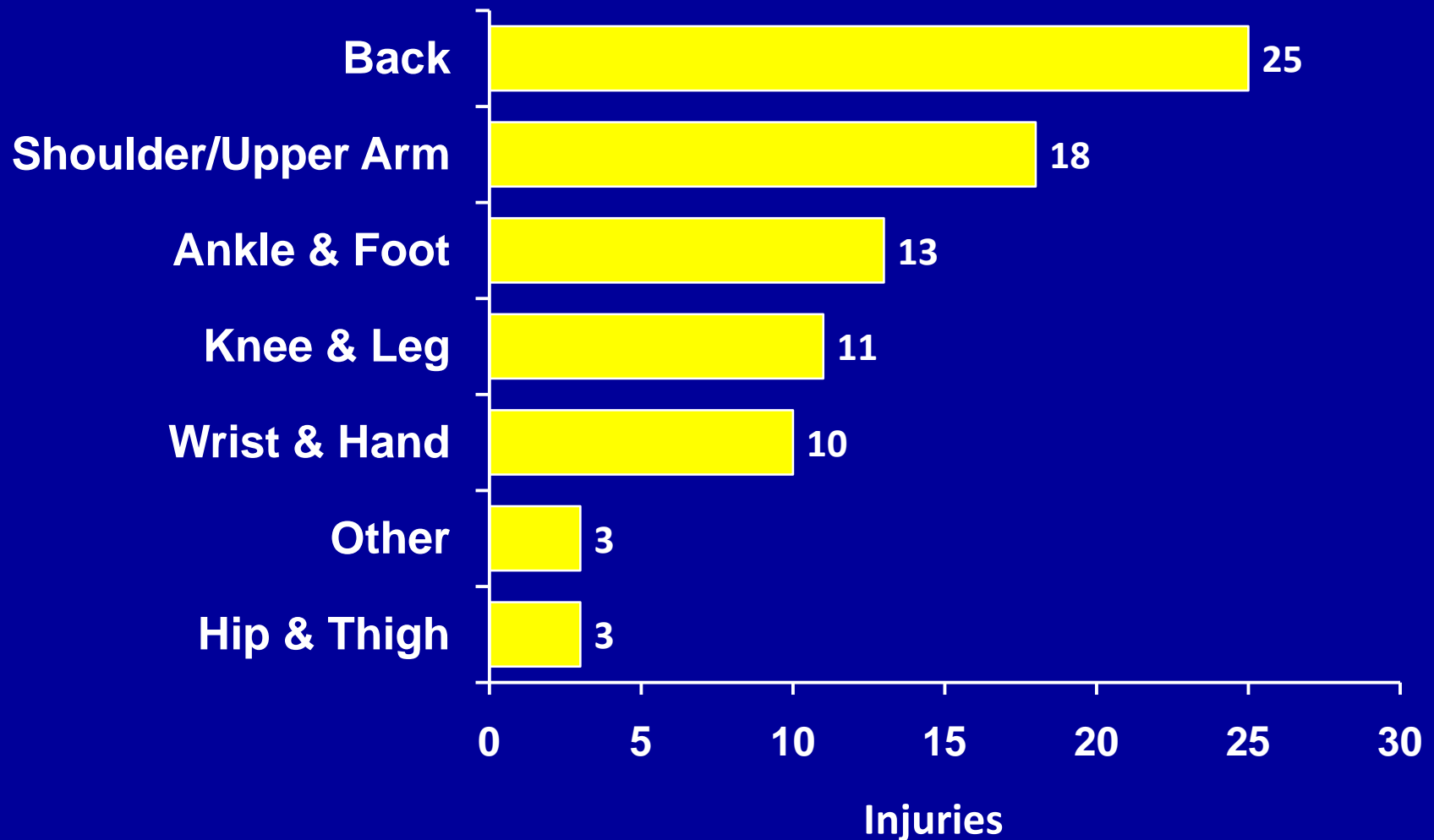
Iliuliuk Clinic Visits for Acute Injury to Fishermen, 2007-2008



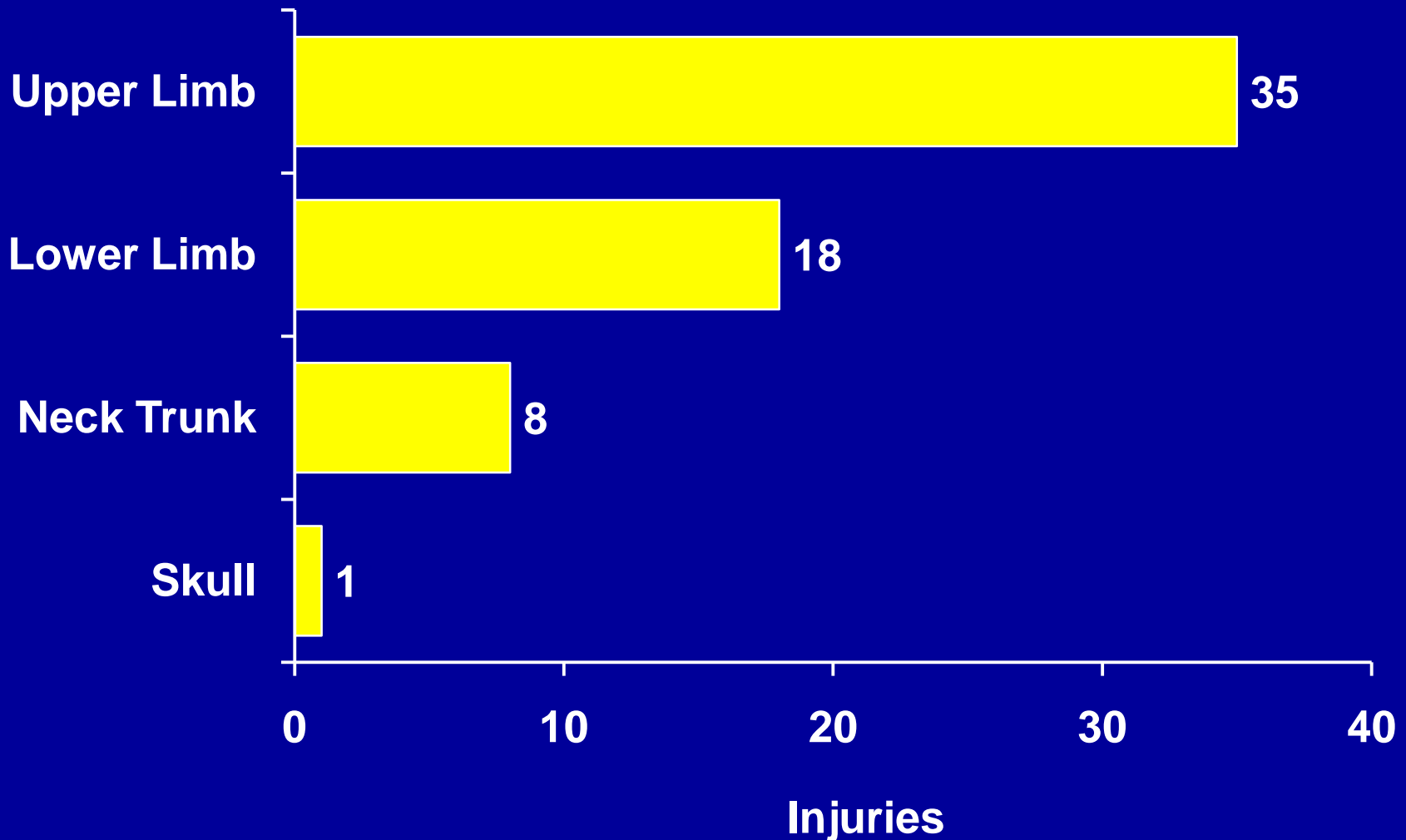
Number of Injuries to Fishermen by Type, 2007-2008 (N = 366)



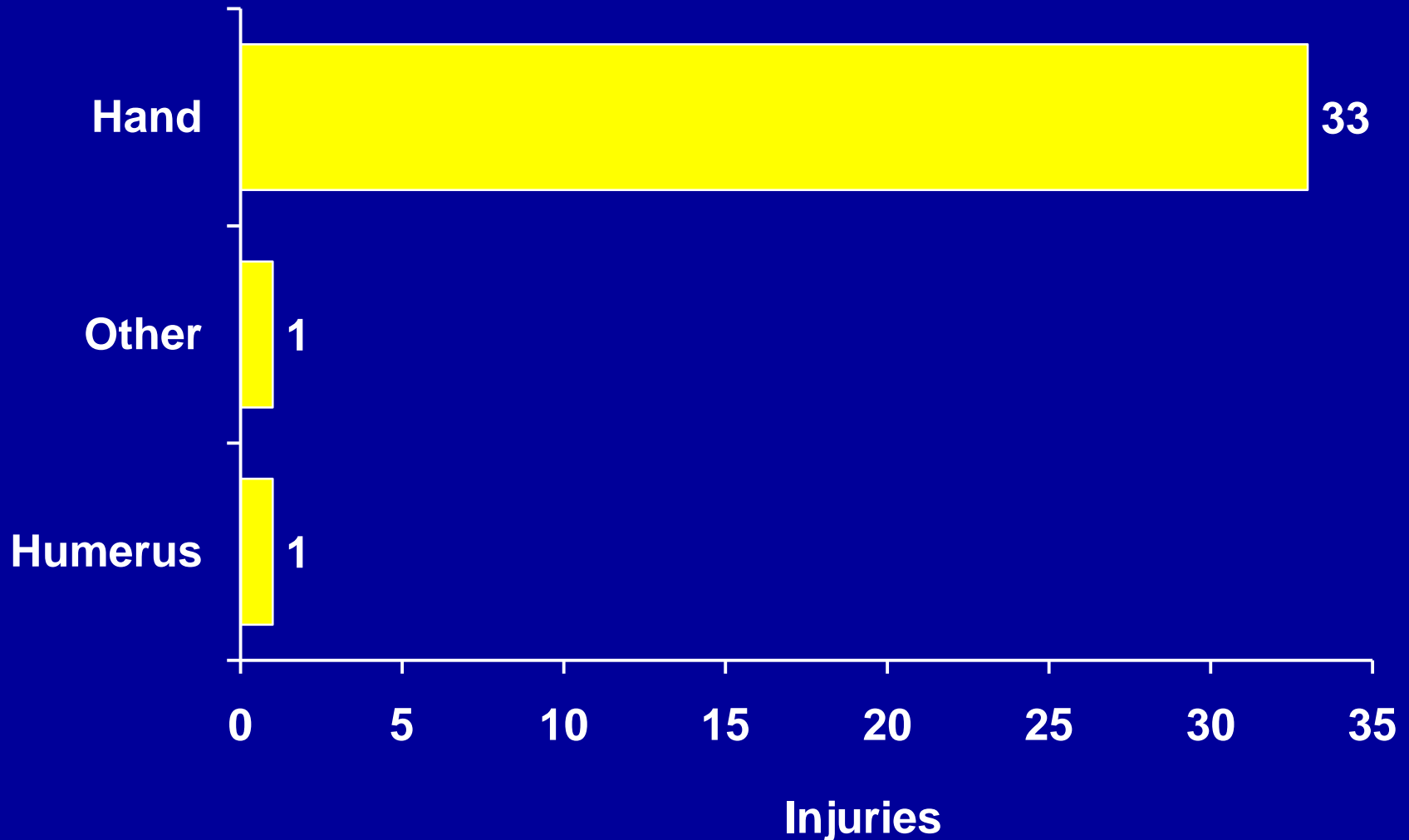
Strain & Sprain Injuries to Fishermen, 2007-2008 (N = 82)



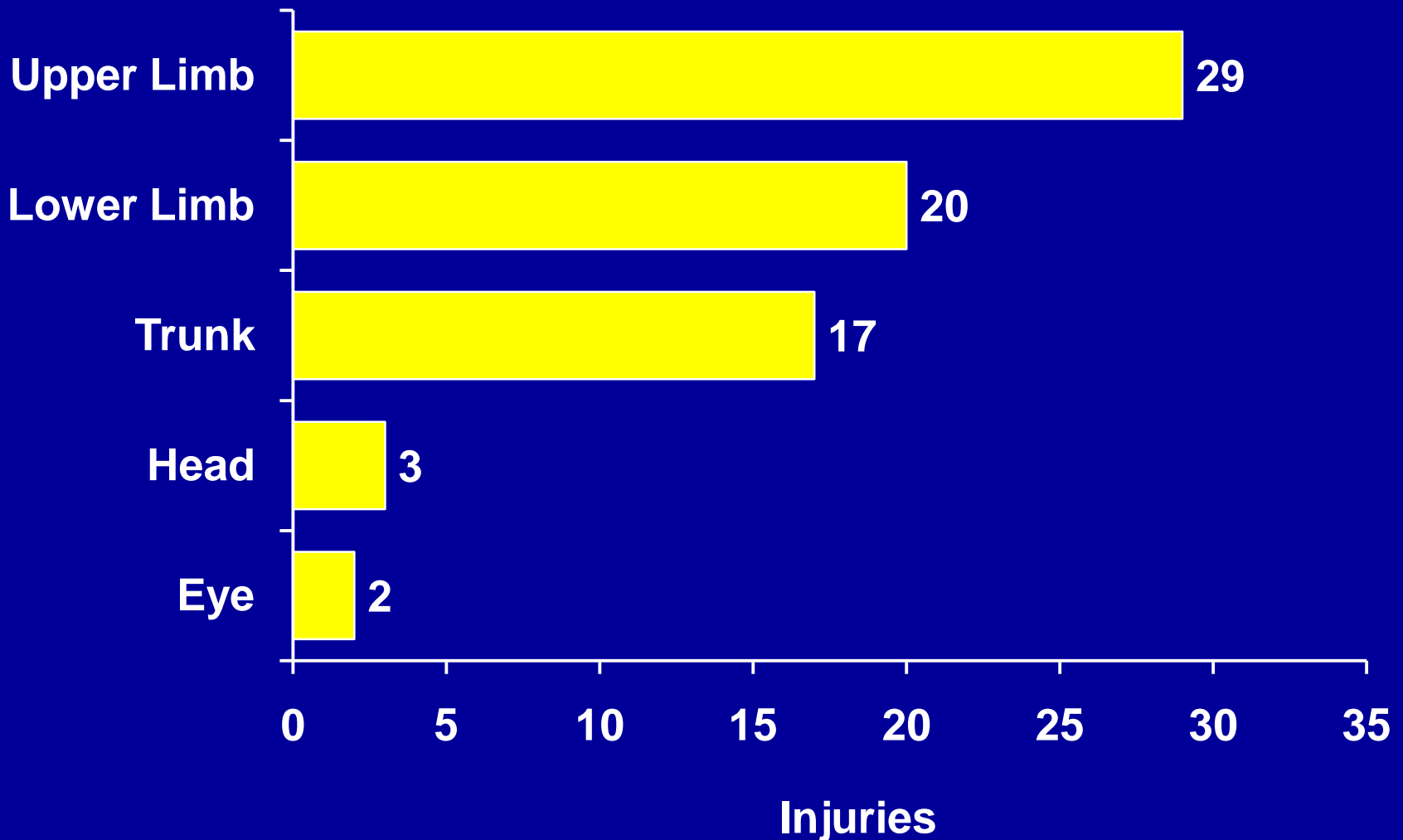
Fractures Among Fishermen, 2007-2008 (N = 72)



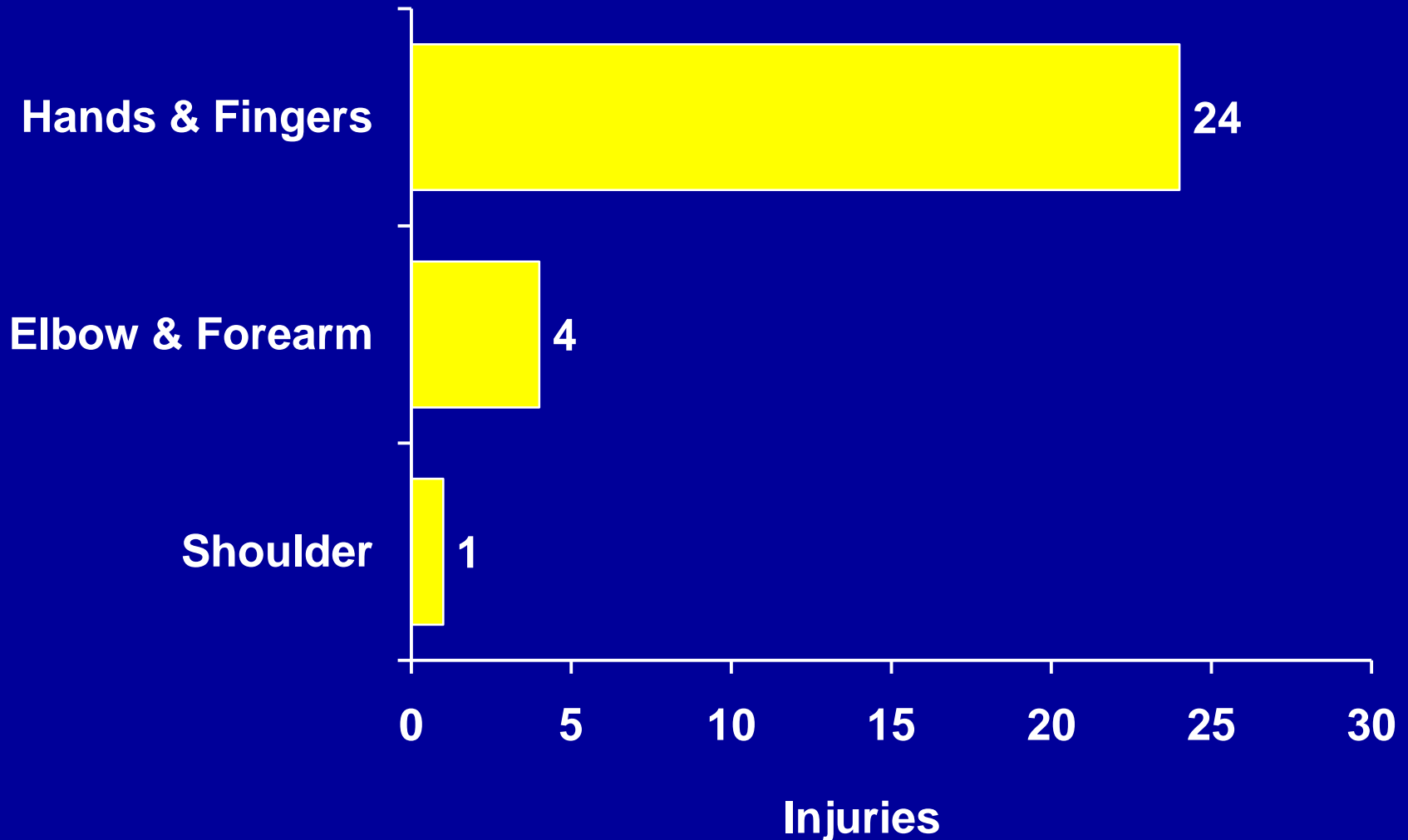
Upper Limb Fractures Among Fishermen, 2007-2008 (N = 35)



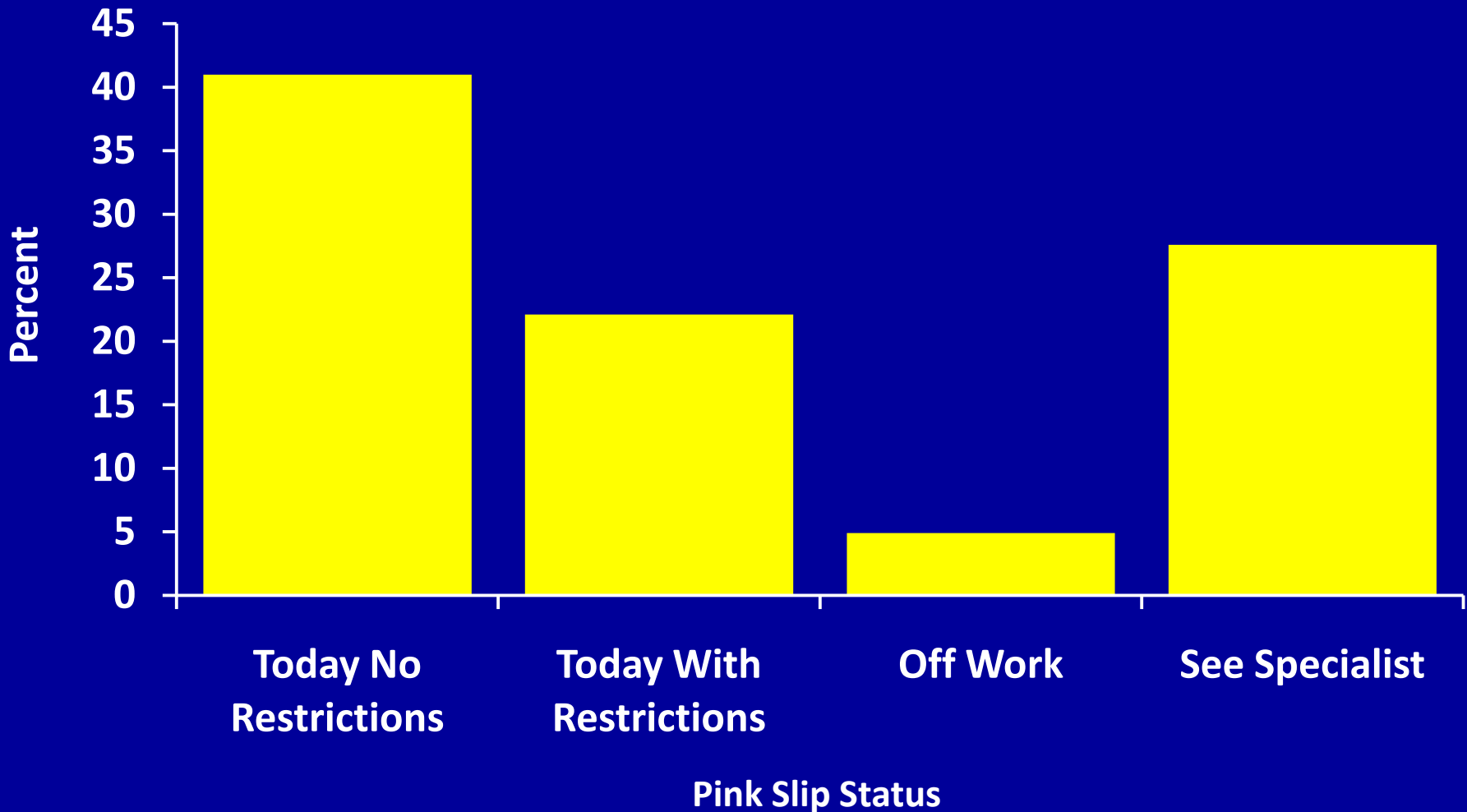
Contusions Among Fishermen, 2007-2008 (N = 72)



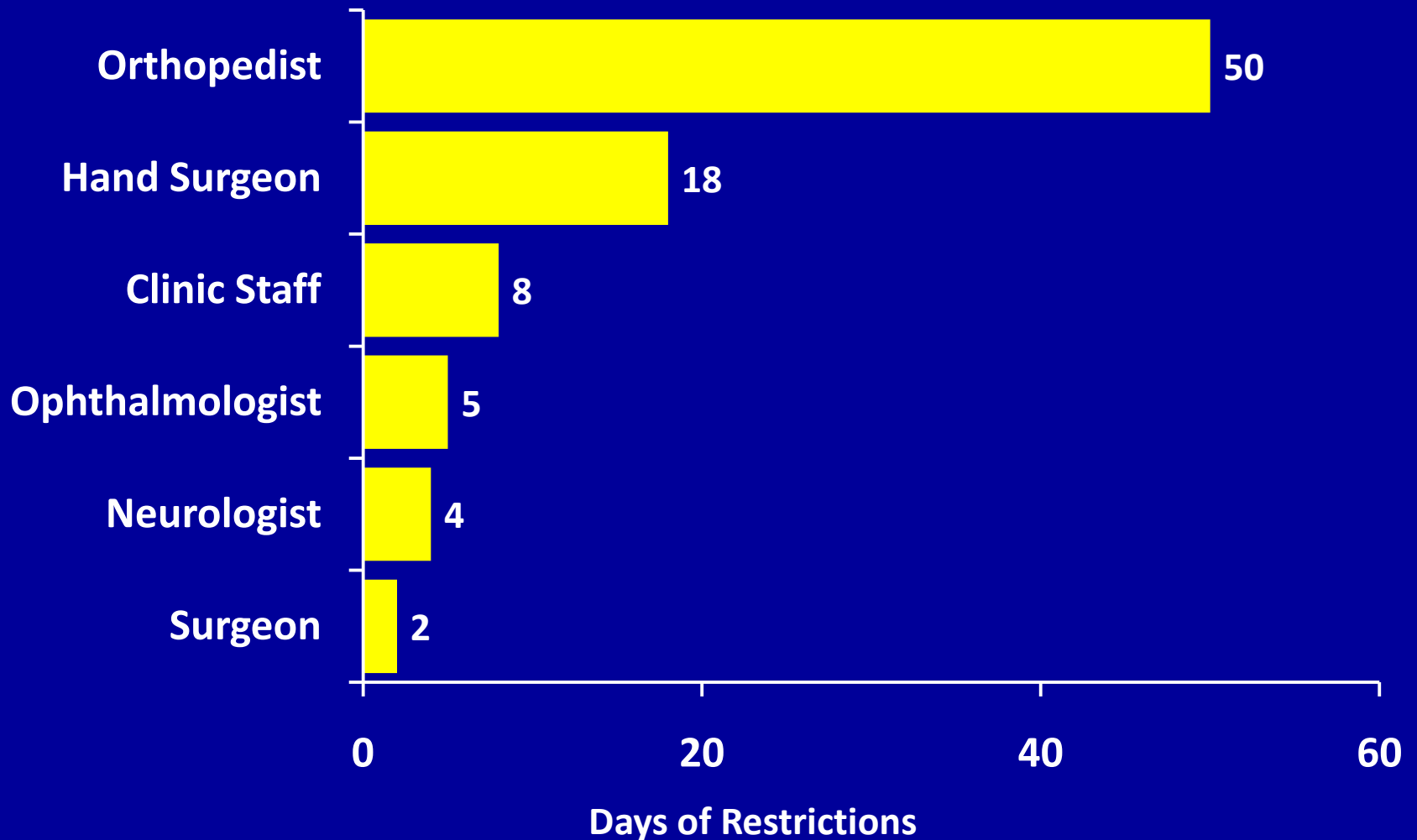
Upper Limb Contusions Among Fishermen, 2007-2008 (N = 29)



Fisherman Return to Work Status, 2007-2008 (N=366)



Injuries to Fishermen by Specialist Consulted, (N=85)



Safety Pays

- Estimates cost of injury by type
- Uses profit margin (e.g. 3%)
- Calculates profit required per injury
- 1 Fracture, 3% margin
- Direct Costs = \$37,911
- Indirect Costs = \$41, 702
- Income required (3%) = \$2,653,766

Indirect Costs

- Wages not covered by work comp
- Costs from work stoppage
- Post-incident administrative time
- Employee training & replacement costs
- Lost productivity
 - new hire learning curve
 - Accommodation of injured employees
- Replacement of damaged material, machinery and property.

Conclusions

- Male, Caucasian, average age 39
- Most are deckhands & processors
- Injured at sea, delayed presentation
- Hand injuries & back strain
- Slips & falls on deck
- Deck equipment
- Handling frozen product

Limitations

- Documentation inconsistent
- Underreporting
- Worst injuries evacuated

Recommendations

- Continued data analysis
- Expanded chart reviews in AK
- Field research for hand injury
- Job hazard analyses
- Surveillance system

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Fishing Methods



Injuries to Fishermen by Days of Restrictions, 2007-2008 (N=88)

